Health and Safety Plan

Abatement and Selective Demolition
130 Cedar Street
New York, NY 10006

March 20, 2007

Revised per EPA Comments

Prepared for:
Masterworks Development Corporation
56 West 45th Street, 4th Floor
New York, NY 10036

Prepared by:
RJ Lee*Group*, Inc.
350 Hochberg Rd.
Monroeville, PA 15146
www.rjlg.com

Table of Contents

List of Tables

Health and Safety Plan

1.0 Introduction

This Health and Safety Plan (HASP) has been prepared to protect the health and safety of all personnel working in, on, and around the building located at 130 Cedar Street in New York, NY 10006 ("the Building") until such point that the environmental restoration of the Building is complete. The requirements in this document were necessitated by the physical, chemical, and biological hazards produced in the Building as a result of the events of September 11, 2001 (WTC Event).

The WTC Event and its aftermath resulted in damage to the Building's windows and exposed the Building interior to dust, debris, and smoke from the WTC site. These residues expose personnel working in the Building to the risk of exposure to potential hazardous materials in those residues. The hazardous materials identified in adjacent buildings in those residues include asbestos, mercury, lead, cadmium, chromium, zinc, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and the group of combustion products collectively known as polychlorinated dibenzo dioxins and furans.

This HASP sets out organizational and procedural safeguards to alert personnel working in the Building to these hazards and to limit their exposure to these hazards. The HASP is based on current knowledge of conditions in the Building and is intended to be a flexible document that may be updated as new information becomes available and as conditions change in the Building.

This HASP is a supplement to and shall be followed in conjunction with the General Contractor's Site Safety Plan and the Emergency Response Plan. All abatement workers must comply with worker protection per OSHA, NYCDEP and NYSDOL.

2.0 Responsibilities

This section outlines the responsibilities of the Site Hygiene Manager (SHM), the Environmental Investigation Site Safety Manager (EISSM), all employers on the site, as well as their Employer's Site Safety Representatives (ESSR) and employees.

2.1 Site Hygiene Manager

The Site Hygiene Manager (SHM), Dr. Bobby Gunter, is responsible for ensuring overall compliance with the provisions of the HASP, except for those that are assigned to the Environmental Investigation Site Safety Manager.

- Monitor compliance with requirements related to chemical and biological hazards contained in Federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910 and 1926) for respiratory protection, personal protective equipment, and exposure to hazardous substances including but not limited to asbestos, heavy metals, PCBs, PAHs, and crystalline silica.
- Ensure compliance with the occupational health requirements set forth in this HASP, working with appropriate parties to ensure that deficiencies are addressed in a timely manner, and updating the requirements of this HASP as necessary to address changing conditions and newly identified hazards in the Building.
- Review collected information pertaining to the chemical and biological hazards present on the site, and summarizing and distributing that information to the environmental investigation personnel as necessary.
- Ensure that all personnel working on the site receive appropriate training in recognition, communication, and control of hazards on the site, and in the requirements of this HASP.
- Ensure that all personnel working on the site maintain up-to-date medical examinations, respirator fit tests, and asbestos training appropriate to their duties.
- Cooperate with the overall Contractor's Site Safety Officer (CSO)[1] and the Environmental Investigation Site Safety Manager to ensure that health and safety issues on the site are identified and appropriately addressed in a timely manner.

2.2 Environmental Investigation Site Safety Manager

The Environmental Investigation Site Safety Manager (EISSM), Matt Zock, is responsible for ensuring compliance, by environmental investigation personnel along with all other personnel as assistance to the SHM, with this HASP, except for those provisions that are assigned to the SHM or CSO.

- Monitor compliance with safety regulations, including OSHA regulations (29 CFR 1910 and 1926), New York City Department of Buildings regulations (pursuant to Local Law 45 of 1983), and the New York City Building Code (Subchapter 19).
- Inspect environmental remediation, including but not limited to asbestos abatement, mold abatement, removal of fungal contaminated materials, etc., performed in the Building to ensure compliance with the

[1] To Be Determined by Laval

requirements for health & safety procedures, and work with appropriate parties to ensure that deficiencies are addressed in a timely manner.

- Identify changing conditions and new hazards in the Building, and submit recommendations for updating this HASP as necessary to address the new conditions.
- Collect and maintain copies of hazard communication programs, material safety data sheets (MSDS), and emergency telephone numbers, from all environmental contractors on site, and distribute that information to all employers on the site as necessary.
- Ensure that all environmental contracting personnel working on the site receive appropriate training in recognition, communication, and controls of physical hazards on the site, and in the requirements of this HASP.
- Perform other duties outlined in this HASP.
- Coordinate with the SHM to ensure that health and safety issues on the site are identified and appropriately addressed in a timely manner.

2.3 Employers

All employers on site are responsible for complying with this HASP as they pertain to the activities and personnel of their company and subcontractors.

- Employers must ensure that their work on site complies with federal, state, and local safety and health regulations, and the requirements of this HASP.
- Provide to the EISSM the information required to be submitted by employers on the site, including copies of hazard communication programs, material safety data sheets (MSDSs), emergency telephone numbers of key personnel, and, where applicable, written Health and Safety Program and, as necessary, written Confined Space Entry Programs and Fall Protection Programs, to be forwarded to the SSM.
- Ensure and document that all personnel working on the site receive appropriate training in recognition, communication and controls of physical, chemical and biological hazards on to which they may be exposed, and in the applicable requirements of the HASP.
- Bring health and safety issues observed on the site to the attention of the CSO, SHM and/or the EISSM and cooperate in mitigating hazards in a timely manner.
- The Employer must designate an Employer's Site Safety Representative (ESSR) to represent the employer in attending meetings and ensuring compliance with this HASP.

2.4 Employer's Site Safety Representative

Each employer must designate an Employer's Site Safety Representative (ESSR) who will be responsible for monitoring the company's compliance with this HASP.

- The ESSR must ensure that their employees and subcontractors comply with applicable OSHA, New York City regulations, and this HASP.
- The ESSR must ensure training of employees and subcontractors in the recognition, avoidance and control of chemical, biological and physical hazards present on site, including multilingual training as necessary to ensure effective communication with all employees and subcontractors.
- The ESSR must maintain records as required by the HASP, and applicable regulations, including medical, fittest, and training records, for all employees and subcontractors.
- The ESSR must alert the CSO, SHM and/or EISSM of conditions that present a health or safety hazard that may not be addressed by this HASP and of site conditions or activities that are not in compliance with this HASP.
- The ESSR must attend Project Safety Meetings as requested and to communicate pertinent information to their employees and subcontractors.

2.5 Employees and Subcontractors

All employees are responsible for performing their work in a healthy and safe manner in accordance with this HASP.

- Obey applicable OSHA and New York City safety and health regulations.
- Familiarize themselves with the physical and chemical hazards on the site and how to protect against these hazards.
- Learn and comply with the requirements of this HASP as they pertain to their work, including personal protective equipment, decontamination, and specific work practices.
- Learn and comply with site security requirements, including entry and exit procedures and inspections.
- Obey prohibitions on drug and alcohol use; smoking in the Building; horseplay; eating, drinking and chewing except in designated areas; and using restrooms except for designated facilities.
- Learn and comply with special requirements for entering restricted areas of the Building.

3.0 Personnel Training

3.1 Personnel Working in the Building

- All employers must ensure that all employees and subcontractors, including specialty trades, possess all licenses, certifications, and training as required by applicable law for the work performed and as required by this HASP.
- All employers must ensure that all employees and subcontractors entering any part of the Building are familiar with the HASP.

3.2 Personnel Working in the Containment Area

- All employers must ensure that all employees and subcontractors entering the containment area have received, at a minimum, within the past year the following general training in a language understood by the employees:
- A two-hour asbestos awareness-training program.
- All abatement workers must possess valid and current NYSDOL and NYCDEP licenses.
- All employers must ensure that all employees and subcontractors entering the Containment Area have received and documented, within the past six months, site-specific training in a language understood by the employees regarding potential physical, chemical and biological hazards in the building, to include the following topics:
- Contents and availability of this HASP.
- Site communication protocols.
- Identification and control of physical, chemical and biological hazards on site.
- Selection, use, testing, limitations, and care of respirators to be worn.
- Decontamination procedures for personnel, personal protective equipment, and other equipment used on the site.
- Routes of access, egress, evacuation routes, emergency alarm systems, and emergency response procedures and requirements including methods to obtain emergency assistance and medical attention.

4.0 Reduction of Employee Exposures

To protect the health of workers in areas of the Building that have not yet been cleaned, employee exposures will be reduced by the following means.

- Engineering Controls
- Use fume eductors attached to high-efficiency particulate air (HEPA) filters for all hand-held power tools.
- Use HEPA-filtered air-filtration devices to reduce dust levels.
- Use only vacuum cleaners that are equipped with HEPA filters.
- Work Practices
- Avoid generating dust wherever possible.
- Wet all dust-laden materials before disturbing them.
- Handle or remove contaminated materials in a way that minimizes the generation of dust and debris.
- Thoroughly wash hands, face, hair, and neck upon leaving the area and before eating, drinking, or smoking.
- No dry sweeping of any materials in the Building.
- Personal Protective Equipment
- Refer to section 5.0.
- Decontamination Procedures
- Refer to section 6.0.
- Equipment Decontamination and Waste Disposal
- Refer to section 7.0.

5.0 Personal Protective Equipment

All workers shall wear personal protective equipment (PPE) in areas that have not been abated and met clearance requirements as outlined below (Table 1).

Table 1. Personal Protective Equipment Minimum Requirements

Location	Hazards	Activity	PPE Required
Areas that have not yet been cleaned of visible dust and debris (the containment area)	Asbestos, crystalline silica, heavy metals, PCBs, PNAs, dioxins, in air on surfaces, and in dust, debris and porous materials.	General access, inspection or sampling	Minimum Respirator: 1/2 or full- face APR with P-100. Full Face PAPR during ACM abatement Clothing: Double suit (Tyvek outer suit) Shoes: Hard-soled work boot Gloves: Nitrile Flashlight

5.1

5.2 Respiratory Protection

- Only those personnel who have been medically qualified to wear a respirator, and who have been fit tested in the particular respirator (i.e., manufacturer, model and size) they intend to wear, will be allowed to wear a respirator in the Building.
- All employers must provide personnel who may wear a respirator in the Building with personally issued and marked respiratory equipment in accordance with the OSHA asbestos standard (29 CFR 1926.1101) and the OSHA respiratory protection standard (29 CFR 1910.134), including a written respiratory protection program that includes air monitoring, medical monitoring, training and fit testing for employees who wear respirators.
- Respiratory protection must be determined based on Table 1 according to work area and work activity. A respirator of lesser protection may not be used unless sufficient full-shift personal air monitoring has been conducted, representative of "worst case" situations and determined by the SHM to support a downgrade in protection. At no time in the project may disposable dust masks be used for respiratory protection on the site.

- Personnel must ensure that their respirators form a seal against the face so that the wearer receives air only through the air purifying cartridges or hose attached to the respirator. Facial hair that interferes with the effectiveness of a respirator will not be permitted.
- Respirator filters must be changed at the end of each shift. Employers must provide a sufficient inventory of filters for daily replacement.
- Employers are responsible for ensuring the adequacy of respiratory protection (or the lack of respiratory protection) for its employees and subcontractors based on personal air sampling.
- Employers will collect personal air samples of employees according to a Personal Air Sampling Plan, which will be submitted to the SHM for approval. The plan will describe the contaminants to be sampled, the frequency of sample collection, the method of sample collection and analysis, and the method by which employees will be identified for sampling. An employer may rely on specific air monitoring results previously developed by another employer on site if deemed by the SHM to be representative of the employer's employee exposures.
- If at any time personal air samples indicate airborne exposures above one-half of the OSHA Permissible Exposure Limit, or PEL (using the protection factor of the respirator and the OSHA formula for exposure to multiple contaminants), respiratory protection will be upgraded for the activities represented until engineering and work practice controls are demonstrated through additional monitoring of the activity to reduce exposure levels below one-half of the PEL.

5.3 Disposable Protective Clothing

Personnel entering the containment area must wear protective clothing that provides complete skin coverage. This clothing will consist of double suits; inner polypropylene and outer Tyvek.

- Protective clothing that becomes ripped or torn during the workday must be repaired or replaced immediately.
- Except in areas otherwise specified in Table 1, outer protective clothing must be of the nonporous type and/or specifically manufactured for use in asbestos regulated areas (Tyvek or equivalent).
- Disposable protective clothing must be discarded and disposed of as asbestos waste every time the wearer exits from the Containment Area through the decontamination facility.
- Wearing of suits outside the building is prohibited.

6.0 Personnel Entry and Decontamination Procedures

6.1 General Building Access

All personnel entering into the containment area must observe the "buddy system" at all times, maintaining communication or visual contact among crew members at all times.

Personnel new to the Building, the building owner's employees and representatives and outside consultants, must be escorted by personnel familiar with the Building, the location of the containment area, personnel decontamination units and decontamination procedures, physical hazards, and emergency exit routes.

6.2 Entrance to the Containment Area

- All personnel to enter into a containment area must sign in at the entrance to the containment area. This "sign in" is in addition to the general Building access sign-in.
- All personnel who will enter the containment area must double suit; poly inner and Tyvek outer, Nitrile gloves and their assigned respirator in the change room. Workers must then pass through the equipment room and into the containment area.
- Personnel must not eat, drink, smoke, chew gum, use tobacco or tobacco products or apply cosmetics in the containment area. To do any of the above, the worker must leave the containment area following the complete decontamination sequence.
- In the event that a worker in the containment area requires replacement of a protective suit or respirator filter, he should exit the containment area utilizing proper decontamination procedures, make necessary repairs or replacements, don their respirator and new protective clothing and re-enter the containment area.

6.3 Exiting the Containment Area

- All personnel exiting the containment area must pass through the decontamination enclosure system to decontaminate or dispose of their clothing and equipment.
- Before leaving the containment area, personnel must remove all gross contamination and debris from their disposable coveralls and equipment by vacuuming with HEPA vacuums. Removal of materials from protective clothing or equipment by blowing, shaking, or any other means that may disperse materials into the air is prohibited.
- Personnel will then remove their outer Tyvek and place them in the lined barrels.

- Personnel will then proceed to chamber B and remove their inner suit and gloves and place them in the lined barrels provided.
- Personnel must then proceed immediately into the shower room and wash and rinse hair, neck, face, respirator, arms, and hands.
- Respirators must be removed after the worker has showered to prevent inhalation of fibers. Respirator filters must be disposed of at the end of each workday. Respirator filters, protective clothing and decontamination waste must be disposed as asbestos contaminated waste.
- After showering, personnel must go to the clean room, dress in street clothes, and properly store respirators, and other equipment.

7.0 Equipment Decontamination and Waste Disposal

7.1 Personal Tools and Equipment

Personal tools and equipment that are brought out of the containment area must be decontaminated in the decontamination system as described in Section 6.0.

7.2 Other Tools and Equipment

Other tools and equipment (i.e., from a contractor's central stores or rental equipment) that are brought out of the containment area must be decontaminated in the waste decontamination system per the New York City Asbestos regulations.

8.0 Special Emergency Procedures

- Personnel will be directed to evacuate the Building in the event of a medical or safety emergency, including fire, accident or any other event that increases risks associated with chemical, biological and physical hazards, until the increased risk can be assessed and controlled.
- Site personnel must ensure that their work does not obstruct exits and that work areas are kept neat, clean, and safe.
- Should someone be transported to a hospital or doctor, a copy of this document must accompany them. NECESSARY EMERGENCY PROCEDURES MUST TAKE PRIORITY OVER ALL OTHER REQUIREMENTS OF THIS DOCUMENT.
- The extent of emergency decontamination will depend on the severity of the injury or illness and the nature of the contamination. Decontamination consists of removal of contaminated outer clothing and equipment. If the emergency is such that there is insufficient time or the contaminated clothing cannot be removed, the person should be given required first aid treatment, and then wrapped in plastic or a blanket prior to transportation to medical care. If heat stress is a factor in the victim's illness/injury, all protective garments must be removed from the

victim immediately. Other than the primary exits through the freight elevator and back stairwell to the personal decontamination chamber at the first floor loading dock/elevator lobby, there is an emergency exit through the main stairwell to the loading dock.

- In the event of an illness, injury, or emergency at the site, appropriate emergency measures must be taken immediately to assist those who have been injured or exposed and to protect others from hazards. Call 911 for emergency response.
- In the event of an emergency, the CSO, SHM, and the EISSM must be notified without delay. The CSO, SHM, and EISSM will investigate the site conditions to evaluate and determine the cause of the incident, and the precautions that will be implemented to prevent a reoccurrence.
- In case of a site emergency requiring evacuation of all or part of the Building, personnel must evacuate to a designated safe refuge location, both for their own personal safety and to prevent hampering response/rescue efforts. Each employer will account for all of its personnel.

9.0 Documentation

Establish and maintain documentation that will record, at a minimum, the following information:

- Personnel on the site, their arrival, and departure times at the Building and their destination on the site.
- Information required to be maintained by the OSHA respiratory protection standard, including medical clearance documents, training and certification records, fit-test records, and the results of personal air monitoring to determine employee exposures.
- Incidents and unusual activities that occur on the site, such as, but not limited to, injuries, accidents, spills, breaches of security, equipment failures and weather related problems.
- Records of safety and health inspections by governmental agencies.
- Meeting Minutes of "Tailgate Safety Meetings"

10.0 Standards Incorporated By Reference

The following publications are incorporated by reference.

- Federal OSHA Regulations for General Industry (29 CFR 1920)
- Subpart C (General Safety and Health Concerns)
- Subpart D (Walking and Working Surfaces)
- Subpart E (Means of Egress)

- Subpart G (Occupational Health and Environmental Control)
- Subpart I (Personal Protective Equipment)
- Subpart J (General Environmental Controls)
- Subpart K (Medical and First Aid)
- Subpart L (Fire Protection)
- Subpart P (Hand and Portable Power Tools)
- Subpart S (Electrical)
- Subpart Z (Toxic and Hazardous Substances)
- Federal OSHA Construction Regulations (29 CFR 1926)
- Subpart C (General Safety and Health Provisions)
- Subpart D (Occupational Health and Environmental Control)
- Subpart E (Personal Protective and Lifesaving Equipment)
- Subpart F (Fire Protection and Prevention)
- Subpart G (Signs, Signals, and Barricades)
- Subpart H (Materials Handling, Storage, Use and Disposal)
- Subpart I (Tools-Hand and Power)
- Subpart K (Electrical)
- Subpart L (Scaffolding)
- Subpart T (Demolition)
- Subpart X (Stairways and Ladders)
- U.S. Environmental Protection Agency Regulations
- 40 CFR SUBCHAPTER C
- 40 CFR Part 61, Subpart A (General Provisions)
- 40 CFR Part 61, Subpart M (National Emission Standard for Asbestos)
- US EPA 40 CFR SUBCHAPTER 1
- 40 CFR Part 241, (Guidelines for the Land Disposal of Solid Wastes)
- 40 CFR Part 257, (Criteria for Classification of Solid Waste Disposal Facilities and Practices)
- US EPA 40 CFR SUBCHAPTER R

- 40 CFR Part 763, (Asbestos Hazard Emergency Response Act)
- American National Standards Institute (ANSI) Publications
- Z9.2, (Fundamentals Governing the Design and Operation of Local Exhaust Systems)
- Z88.2, (Practices for Respiratory Protection)
- Underwriters Laboratories, Inc. (UL) Publications
- 586 (Test Performance of High Efficiency, Particulate, Air Filters Units)
- Local Asbestos Licensing Regulations
- The State of New York Department of Natural Resources and Environmental Control asbestos regulations.
- The State of New York Department of Asbestos Licensing Regulation
- City of New York Asbestos Licensing Authority
- National Electric Code (Latest Edition)
- City of New York Department of Licenses and Inspections
- Building Permit and Contractor Licensing Regulations
- American Society for Testing and Materials
- E 1368-99, (Standard Practice for Visual inspection of Asbestos Abatement Projects) National Fire Protection Association (NFPA)
- Standard 701, (Standard Methods of Fire Test for Flame-Resistant Textiles and Films)
-

11.0 Appendix: Program Contact Information

Title	Name	Company	Contact Information
Owner	Christopher Colbourne	Masterworks Development Corporation	56 West 45th Street, 4th Floor New York, NY 10036
Project Director	Dave Crawford	RJ Lee Group, Inc.	350 Fifth Avenue, Suite 5820 New York, NY 10118 Phone: (212) 613-2700 Fax: (212) 613-2701 Cell: (412) 979-3081
Senior Project Manager	Mike Campbell	RJ Lee Group, Inc.	350 Fifth Avenue, Suite 5820 New York, NY 10118 Phone: (212) 613-2700 Fax: (212) 613-2701 Cell: (412) 298-7648

Site Hygiene Manager	Dr. Bobby Gunter	RJ Lee Group, Inc.	350 Fifth Avenue, Suite 5820 New York, NY 10118 Phone: (212) 613-2700 Fax: (212) 613-2701 Cell: (267) 342-0562 Home: (215) 489-9391
Environmental Investigation Site Safety Manager and Community Air Monitoring Coordinator	Matthew Zock	RJ Lee Group, Inc.	350 Fifth Avenue, Suite 5820 New York, NY 10118 Phone: (212) 613-2700 Fax: (212) 613-2701 Cell: (917) 674-1810
Site Supervisor	David Sundell	RJ Lee Group, Inc.	350 Fifth Avenue, Suite 5820 New York, NY 10118 Phone: (212) 613-2700 Fax: (212) 613-2701 Cell: (917) 674-1737
Quality Assurance Officer	Tricia Woods	RJ Lee Group, Inc.	350 Fifth Avenue, Suite 5820 New York, NY 10118 Phone: (724) 325-1776 Fax: (724) 733-1799
Construction Manager	Lech Gorecki	Laval Construction Corporation	1123 Broadway, Suite 807 New York, New York 10010 Phone: (212) 645-2825 Fax: (212) 645-2826 Cell: (917) 559-6706
Contractor Safety Officer	Frank Ferrar	Laval Construction Corporation	1123 Broadway, Suite 807 New York, New York 10010 Phone: (212) 645-2825 Fax: (212) 645-2826 Cell: (516) 987-4191
Contractor	Todd Grant	Nova Development Group, Inc.	189 Townsend St. New Brunswick, NJ 08901 Phone: (732) 565-3655 Fax: (732) 565-3654 Cell: (732) 672-8555